Chapter 3

THEORETICAL FRAMEWORK

3.1   INTRODUCTION

The theoretical framework on which this research is based, is Donabedian's framework on structural, process and outcomes standards as it applies to personnel development, as well as Alspach's theoretical foundation on nursing staff development (Alspach 1995: 3; Donabedian 1980: 81).

With regard to personnel development, the structural standards of Donabedian's theoretical framework refer to staff involved and facilities needed for effective personnel development.   Process standards refer to co-operation between all staff members involved in the execution of the programme, and outcomes standards are related to the outcomes of each facet of the personnel development programme.

The theoretical foundation of Alspach (1995: 3), which includes the principles of adult education, based on Benner's conceptual framework, is used.   In this framework, concepts relating to both nursing and nursing education are included, with as ultimate goal the provision of quality patient care through effective nursing personnel development.   Benner describes the nurse from novice to expert, *novice, advanced, competent, proficient* and *expert* (Alspach 1995: 3). In this personnel development programme, these concepts, combined with Alspach's theory on personnel development is being related to the levels of functioning of both nurse educators and clinical preceptors, and the creation of a learning environment to enhance effective personnel development. Benner's theoretical framework for staff development is suggested for the assessment of skill of nurse educators and clinical preceptors. The guidelines of the Royal College of Nursing are applied in setting standards for the personnel development

programme. These standards in turn are based on standards set by the American Nursing Association (ANA) (American Nurses Association. 1978:2) for nursing personnel development (Alspach 1995: 279; Parsley & Corrigan 1994: 3).

3.2   THE THEORETICAL FRAMEWORK OF DONABEDIAN

Donabedians' theoretical framework refers to three types of standards, namely: structural, process and outcomes standards. These standards are necessary for effective functioning in quality improvement and can also be applied to personnel development.   A standard can be defined as an established criterion or model against which actual results can be compared (Flippo 1984: 54). Standards which are applied to personnel development, are presented in Table 3.1.

Table 3.1:   The theoretical framework of Donabedian

Structural Standards	Process Standards	Outcomes Standards
Philosophy and mission	Educational design and implementation	Quality control Factors to address:
Management of personnel development	Co-operation	- Participation
Policy and procedures	Determining needs	- Co-operation
Personnel: Managers, Nurse educators, Clinical preceptors colleagues and functional staff	Development of programme Participation and co-operation	- Realistic and feasible programme
Facilities and apparatus and supplies	Implementation of programme, Facilitation of learning	- Improvement of skills -Effects on student's/learners learning outcomes
Access to support services Personnel's ability to use equipment	Assessment of achievements	-Effect on student's/learners learning outcomes
Finances, adequate resources and funds for organising personnel development programs	Assessment and control	-Effect on patient care and satisfaction - Evaluation

3.2.1 STRUCTURAL STANDARDS

Donabedian (1980: 81) refers to "…the providers of care, the tools and resources they have at their disposal, and the physical and organizational settings in which they work…" as part of structural standards. The concept 'structure' would therefore include the number of personnel allocated to the personnel development department, their qualifications as well as the financing thereof.

In this research, 'structure' refers to the educational context and the available resources for personnel development. *This would include:*

- The philosophy and mission
- Management of personnel development
- Policies and procedures
- Facilities regarding comfort, convenience of layout and access to support services
- The necessary equipment for the enhancement of personnel development and the ability of personnel to use it
- Personnel and their credentials, experience and clinical credibility
- Finances, adequate resources and funds for organising personnel development programmes (Tappen 1995: 464).

3.2.1.1 THE MISSION AND PHILOSOPHY

The personnel development department should function according to the mission and philosophy of the nursing school. These include ethical aspects related to nursing management such as ethical codes for the nursing profession and ethical standards which provide guidelines for what is right and reasonable (Naude, Meyer & Van Niekerk 2000: 121; Puetz & Peters 1981: 33). Communication, collaboration, authority and responsibility are important features to ensure the success of the personnel

development department.

The following aspects should be included in the philosophy about the functioning of nurse educators and clinical preceptors in the education and training of student nurses:

- Enhancement of access to new information through increased opportunities
- Encouragement for professional development to stimulate competence
- Demonstrating commitment to personnel development through stated policies and managerial practices
- Expansion of the nurse educator's and clinical preceptor's responsibilities and autonomy in student education by increasing their influence in the decision-making process
- The use of meaningful reward systems to motivate educators and clinical preceptors to participate in their own development as well as the effective accompaniment of student nurses (Willis & Dubin 1990: 256.)

3.2.1.2 MANAGEMENT OF PERSONNEL DEVELOPMENT

The proper authority to organise the structure for personnel development in a nursing school would be the management sector of the nursing school (Alspach 1995: 9). The quality of nursing education is the responsibility of the nursing school, in co-operation with nursing management of the clinical services where student nurses receive their clinical training.

A personnel development programme is managed by co-ordinating all phases of the educational process. Organisational and operational functions should be co-ordinated to enhance the effective functioning of the programme (Alspach 1995: 276).

The personnel development department should promote organisational performance through:

- Continuous monitoring of quality
- The development of policies and procedures related to personnel development
- Maintenance of educational records

- Preparation of budgets, and
- Marketing of the personnel development programme and its benefits for both educational and clinical settings.

3.2.1.3 POLICIES AND PROCEDURES

Policies for personnel development in the nursing college should be formulated within the framework of the college's philosophical statements regarding personnel development. A major benefit of written policy statements is that they describe the nursing college's stance on personnel development issues (Alspach 1995: 288). The policies should be applicable to different levels and should correlate with the personnel development perspectives of the health facility regarding education.

The personnel development policy should:
- Clearly state the nursing college's views on the development of nurse educators and clinical preceptors
- Function as a basis for decision-making and actions
- Identify accountability for policy implementation
- Clearly define the parameters of the programme – therefore, who should be included in which parts of the programme (Alspach 1995: 288.)

3.2.1.4 FACILITIES AND EQUIPMENT FOR PERSONNEL DEVELOPMENT

The nursing school in co-operation with the associated university should have facilities at its disposal to enhance learning within the formal theoretical context. These facilities should include libraries, classrooms with the necessary audio-visual equipment and support services. Universities usually have computer laboratories and the necessary software, which could be used to enhance personnel development.

Regarding the development of clinical skills and the maintenance of clinical credibility of both nurse educators and clinical preceptors, co-operation with nursing management of clinical services will be necessary to use learning opportunities in the clinical setting.

The simulation laboratory with its equipment for procedural simulation may be of value, but the development of clinical skills should occur in the real situation (in contact with patients and personnel) to be of real significance (Kelly 1992: 247).

3.2.1.5 THE STAFF OF THE PERSONNEL DEVELOPMENT DEPARTMENT

Personnel should be made responsible for the personnel development programme - nurse educators may share responsibility or have sole responsibility for various aspects of personnel development but should co-operate with their clinical colleagues with regard to the operation of the programme (Alspach 1995: 9). The responsibility for the assessment of developmental needs which should be dealt with in the programme, should be shared between nurse educators and clinical preceptors to prevent a one-sided approach to the programme and to gain co-operation from all parties.

Nurse educators will continue with the school's educational programmes while participating in the personnel development programme. The selected clinical preceptors may be solely assigned to the personnel development function by nursing management, or they may function as unit managers and share in a personnel development programme (Alspach 1995: 9). Preceptors and nurse educators who are allocated to staff the personnel development programme, should be available for the management of personnel development and the necessary accompaniment of learners, if need be.

The personnel allocated to the personnel development department should be selected for their professional abilities and clinical skill as well as their educational management abilities. Alspach (1995: 9) suggests a combined organisational structure consisting of a core of nurse educators with a director of personnel development, together with a cadre of unit- based preceptors under the authority of a clinical director of personnel development. Such a dual structure allows for greater efficiency in the use of educational resources and the ability to be responsive to the unique needs for clinical credibility. The suggested organisational structure is illustrated in Figure 3.1.
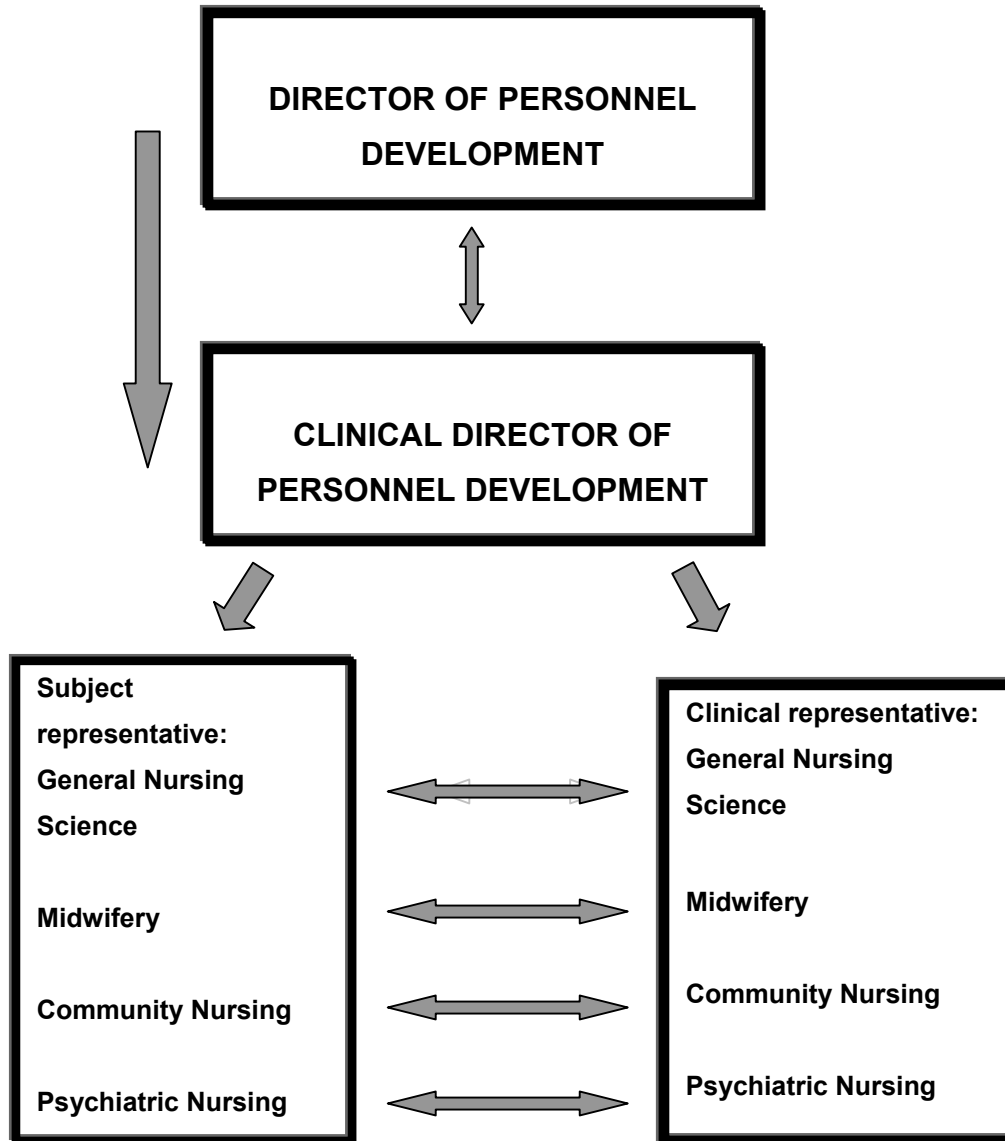
Figure 3.1: The organisational structure of the personnel development department..

3.2.1.6   FINANCING OF PERSONNEL DEVELOPMENT

The Skills Development Levies Act (Act no. 9 of 1999) reflects the government's commitment to the financing of personnel development, namely through the provision of a levy grant scheme for personnel development, as well as funds from the National Skills Fund. However, the nursing college should budget for expenses relating to the use of facilities and other resources.

Alspach (1995: 302) gives the following reasons for a well-planned budget for the personnel development department:

- To document fiscal accountability
- To identify financial support in order to meet educational needs
- To promote operational efficiency of educational activities
- To assist in determining priorities for allocation of funds
- To project future costs of new initiatives and assess the costs of current programmes
- To provide services within the constraints of current financial allocations
- To monitor trends, and
- To monitor the functioning of the personnel development department.

One of the most difficult management problems regarding the maintenance of personnel development programmes is the creation of reward systems for educational personnel rendering services (Willis & Dubin 1990: 257). These include the development of a reward system that would enhance the participation of credible clinical preceptors in the accompaniment of student nurses, and participation in their own educational development (Jooste & Troskie 1995:17). If an individual approach (job-related pay) is followed by the mother institution, additional income could be added to the individual's salary in the form of an allowance. In governmental institutions, this approach, however, is not feasible. The nursing school requires the expertise of the clinical preceptor to enhance the education and training of student nurses in the clinical setting, and therefore needs to reward the clinical preceptor to make this task more attractive and less of a burden.

Jooste and Troskie (1995: 17) make the following suggestions regarding rewards for clinical preceptors:

- Formal recognition by means of the title "preceptor"
- Liasing with the nursing school to participate in institutional development courses such as computer courses
- Participation in formal or simulation education
- Active participation in the compilation of personnel development programmes

- Establishment of a group support system for nurse educators and clinical preceptors
- The possibility of bargaining for a reduction in costs of formal post-basic studies for clinical preceptors [This should be considered as they make a positive and important contribution to the education of student nurses.]
- The use of facilities such as libraries, and
- Financial assistance to attend professional congresses or symposia.

The reward system decided on by nursing college management should be included in the written policy of the personnel development programme.

3.2.2   PROCESS STANDARDS

According to Donabedian, process standards are the activities carried out by educators and preceptors to meet the set standards and to facilitate the actions and procedures which are used in conducting the programme (O'Conner 1986: 394; Parsley & Corrigan 1994: 9). They can include leadership and managerial activities.

Process standards therefore include the following actions and procedures, namely:
- Educational design and implementation
- Facilitation of learning
- Assessment of achievements
- Participation of, and co-operation between different stakeholders.

Process standards also include needs assessment as well as the development and implementation of the programme regarding content, strategies, assessment procedures and co-ordination and control.

3.2.2.1   THE EDUCATIONAL DESIGN

The educational design of a personnel development programme should be based on

adult education principles. Learners to be involved already are professionally developed people, namely nurse educators and clinical preceptors who need to develop new skills and maintain existing skills in order to enhance quality in the accompaniment of student nurses, and ultimately, quality of patient care. To enhance the effectiveness of the personnel development programme, participating practitioners are needed who are reflective and who feel comfortable with the value-added contributions of personnel development such as the development of computer literacy, scientific reasoning ability, academic writing skill, research skills and subject expertise (Gundlach 1994: 120).

Kravutske and Fox (1996:17) suggest the use of Benner's conceptual framework as the basic infrastructure for a personnel development programme (Alspach 1995: 2). According to Benner, (in Abruzzese 1992: 34) nurses (and nurse educators) change their intellectual orientation, integrate their knowledge and refocus their decision-making process on perceptual awareness rather than process-orientated foundations as their clinical practice skills develop. The nurse changes from a *novice* to an *advanced beginner*, becomes *competent*, then *proficient* and finally an *expert*. Alspach's theoretical foundation for nursing staff development will be adapted and used as a framework for the educational design of a personnel development programme, as part of process standards (Alspach 1995: 3).

3.2.2.2 THE THEORETICAL FOUNDATION OF ALSPACH (BASED ON BENNER'S CONCEPTUAL FRAMEWORK) AS APPLIED TO PERSONNEL DEVELOPMENT

In the application of this framework, concepts related to both nursing and nursing education are included. The ultimate goal is to provide quality patient care through the effective development of all nursing personnel involved.

In the following discussion, the levels of development as described in Benner's conceptual framework, namely that of *novice* to *expert*, are applied to nursing and nursing education personnel. The newly qualified nurse educator and preceptor are identified as *novices* while the developed educator/ researcher and clinician are put on

the level of *expert*. See Alspach (1995: 2).

- **The novice**

The newly qualified educator and preceptor, with regard to their educational needs, will be on the continuum somewhere between novice and competent practitioner, depending on their specific educational and clinical expertise. Concerning nursing education, the *novice* could be seen as an educator with limited educational skill and practical experience.

- **The advanced beginner**

An advanced beginner may have some skills in education but needs additional practical experience. With regard to the clinical preceptor, the advanced beginner may be an experienced clinical nurse in need of educational skill and knowledge.

- **A competent educator**

A competent educator has many educational skills and ample practical experience, but requires increased response time and flexibility in the use of teaching strategies and the facilitation of learning. A competent clinical preceptor will be an experienced clinical nurse with basic educational skills and knowledge who still needs time practicing to prepare for the clinical education of students.

- **The proficient educator**

The proficient educator uses perception, is skilled and has four or more years of practical experience, but needs to develop her/ his skill in educational management (Marciniak 1997: 99). The proficient clinical preceptor is an experienced clinical nurse who creates learning opportunities and accompanies student nurses in the clinical setting, but who needs knowledge and skill in the management of nursing educational services.

The educational environment for the implementation of a personnel development programme includes the principles of adult education, teaching-learning principles and the four interrelated and sequential phases of the educational process, namely:

assessment, planning, implementation and   evaluation.   The educational process will be used to assess specific educational needs regarding educational and clinical skills as well as managerial skills of nurse educators and clinical preceptors, as applicable.
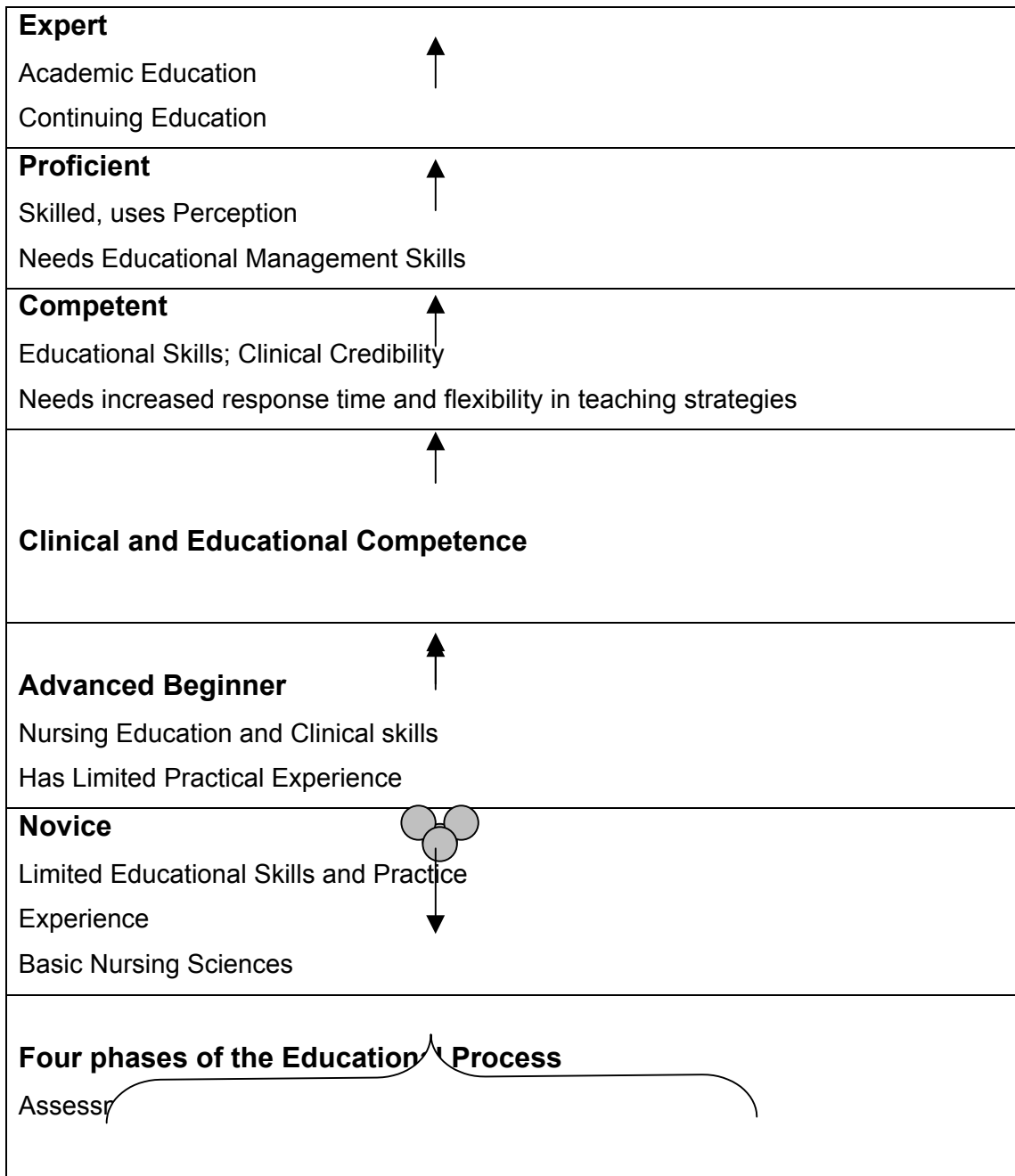
The organisation of the personnel development programme should include assessment of learning needs regarding the facilitation of learning of basic student nurses, and educational and assessment skills. Nurse educators and clinical preceptors who identify themselves as novices or advanced beginners regarding educational skill, may benefit from this part of the programme as they may need updating with regard to basic nursing and nursing education skills.

- **The expert educator**

The expert educator is academically developed, and engaged in continuing education and research. The expert clinical preceptor is a nurse who can analyse and solve problems, and use critical analytical thinking in conceptual reasoning.

The levels *competent* to *expert* will include management of educational programmes, co-operation between educational institutions and health services, and application of related laws and regulations. Skill development in both education and clinical practice is included in these levels, as well as formal study in nursing education and clinical programmes. The theoretical foundation of Alspach is illustrated in Figure 3.2 on page 82.

QUALITY EDUCATION

Expert

Academic Education

Continuing Education

Proficient

Skilled, uses Perception

Needs Educational Management Skills

Competent

Educational Skills; Clinical Credibility

Needs increased response time and flexibility in teaching strategies

Clinical and Educational Competence

Advanced Beginner

Nursing Education and Clinical skills

Has Limited Practical Experience

Novice

Limited Educational Skills and Practice

Experience

Basic Nursing Sciences

Four phases of the Education Process

Assess

Effective Educational Management and Co-ordination

Effective Co-operation with Nursing Services

Figure 3.2: Theoretical framework for personnel development in nursing education (Alspach 1995:2)

3.2.2.3   PROCESS MANAGEMENT

The usual centralised organisational structure of a nursing school plays a key role in negatively affecting learning processes and flexibility, as a centralised, formalistic structure and roles inhibit learning. A more informal structure where participants are included in the process of initiating learning, where creativity is enhanced through risk-taking and the emphasis is shifted from ownership to partnership, will motivate learners to be actively involved in the personnel development programme and will create a positive learning environment (Gundlach 1994:121). The importance of acknowledging learners' existing expertise and accomplishments   cannot be overemphasised (Kravutske & Fox 1996: 17). Process management further entails the organisation of the programme, and includes acquiring the services of experts on specific developmental needs, the necessary facilities for the implementation of the educational programme and management of financial resources. The process should also be recorded effectively.

The organisational structure for the advancement of the personnel development programme should be based on the facilitation of learning through access to resources, financing of learning programmes and formal acknowledgement of success.

Computer literacy forms an important facet of process management and implementation. Computers are necessary for organising the programme, for use by learners, library access, Internet access and recording of the process of personnel development. The skilled use of a computer is a learned behaviour, enhanced by constant use. It is therefore important that individuals who do not have computing skill, should be given the opportunity to develop and maintain those skills. It will enhance active involvement in personnel development and the personal empowerment computing skill offers (Kelly 1992: 248).

3.2.2.4   PROCESS ASSESSMENT

The assessment of the process implies the gathering and interpretation of data to decide

if the process of personnel development is attaining it's goal. The standards that govern the management of personnel development stem from the values and ethical principles that govern relationships between professional nurses (Donabedian 1980: 83). These standards contribute to the individual welfare of the learner as well as the collective welfare of the nursing college and health facility, and ultimately, the welfare of the patient.

Process assessment provides information for the monitoring of the personnel development programme in order to eliminate weak points and promote strengths. The realisation of structural standards, process standards and outcomes standards should be assessed to establish the extent to which the individual welfare of the learner, the collective welfare of the nursing college and healthcare facility and the welfare of the patient have been served by the personnel development programme.

Abruzzese (1992: 239) suggests that aspects regarding the individual learner's experience be included in process assessment to determine if the principles of adult education have been used and if problems were experienced in the physical execution of the programme.

These aspects are as follows:
- Availability and helpfulness of personnel development staff
- Clarity and reality of the programme's goals and objectives
- Usefulness of programme content
- Effectiveness of teaching and learning methodologies
- Access to, and availability of physical facilities such as libraries and computers
- Administration of the programme

Both learners and organisers of the programme should do process assessment on a regular basis to obtain both parties' perspectives on programme quality and program organisation.

To enhance the realisation of process standards enlisted in Donabedian's framework,

the nursing college needs to create a format for co-operation and partnership with the health facility's nursing management. Such a format of co-operation will enhance the determining of educational needs of both nurse educators and clinical preceptors, as well as the assessment of programme outcomes.

3.2.3   OUTCOME STANDARDS

Outcome concern programme performance in relation to the achievement of programme objectives and evaluate the effectiveness of activities by assessing specific desirable changes in the actions of nurse educators and clinical preceptors. *The attainment of outcomes is ensured through quality control measures based on the seven concepts used for quality assurance by the ANA, namely:*

- Organisation and administration
- Human resources
- Learners
- Educational design
- Material resources and facilities
- Records and reports
- Assessment (O'Connor 1986: 393.)

The inclusion of the various concepts of the programme, as listed above, does not necessarily signify quality until their relationship with the outcomes has been established. Once it has been established that the inclusion of certain procedures or elements clearly is associated with good results, the mere presence or absence of these procedures can be accepted as evidence of good or bad quality (Donabedian 1980: 83).

Evaluation of the personnel development programme provides value judgements about the various components of the programme so that decisions can be made to improve these elements, if necessary.

3.2.3.1   CRITERIA FOR EVALUATION

The evaluation of outcomes standards implies the gathering and interpretation of data regarding the outcomes of the personnel development programme to evaluate if the action was successful. *Criterion referenced evaluation* should be used in personnel development. This is the assessment of performance against set and agreed criteria (Abruzzese 1992: 236). Criteria should be set for each aspect of the programme to be evaluated.

Programme elements that should be assessed to evaluate the attainment of outcomes standards, include:

- The quality of participation of the various stakeholders, namely the nursing college, clinical facilities, nurse educators and clinical preceptors
- Measures taken to ensure effective co-operation in the execution of the programme
- The realism and feasibility of the programme in educational context
- Improvement in the educational and clinical skills of learners
- Changes in the quality of student nurses' academic and clinical performance
- Qualitative changes in patient care and the promotion of patient satisfaction with nursing care rendered.

Educational evaluations are helpful when they afford valid, dependable and significant information needed to make decisions about the programme (Alspach 1995: 112). Evaluation data further could indicate future educational requirements and therefore facilitate planning (Puetz & Peters 1981: 218).

3.2.3.2 EVALUATION OF THE PERSONNEL DEVELOPMENT PROGRAMME

Evaluation is the process by which a judgement is made concerning the relative value of something (Alspach 1995: 112). The process of evaluation considers the various components of a programme and ascribes some qualitative evaluation to each component.

The various components of the personnel development programme should be viewed as an interrelated system of *inputs, throughputs* and *outputs* within the context of the learner's field of expertise and required functioning.

The components of programme evaluation, according to Alspach (1995: 113) and Abruzzese (1992: 237), are as follows:

- **Context**

In context evaluation, the continuous assessment of needs, problems and learning opportunities provides a rationale for the selection of outcomes. The content of the personnel development programme should be assessed within the context of the professional expectations of both nurse educators and clinical preceptors.

- **Inputs, thus structural standards**

Inputs of the personnel development programme comprise all aspects included in the planning prior to the educational process that may influence the learning process.

These aspects are:
- The mission and philosophy of the personnel development department
- Policies and procedures regarding personnel development
- The necessary facilities and equipment
- Stated outcomes of the programme
- Types of learners and qualifications, credentials, experience and clinical credibility of educators
- Finances involved in the execution of the programme.

Inputs from management of the nursing school may include the organisational structure for personnel development and available resources.

- **Throughputs, thus process standards**

Throughputs include all activities of the process that make education and training possible. Throughputs therefore include activities carried out by educators and

preceptors to meet the set standards and facilitate the actions and procedures used in conducting the programme. They can include leadership and managerial activities.

For a personnel development programme for nurse educators and clinical preceptors, they would include a series of transactions between management of the clinical institution and nursing school management to discuss the necessary facilities and other aspects of bilateral importance. Priorities for education, statements about educational outcomes, time allocation, and teaching and evaluation strategies could be defined as throughputs.

- **Outputs, thus outcomes standards**

Assessment of outputs includes all direct and indirect outcomes of the programme. This is the measurement of change in the behaviour of nurse educators and clinical preceptors that persists after the learning experience (Abruzzese 1992: 243).

All participants should be included in the evaluation process, and the self-report could be used as a strategy for output evaluation. The clinical institution's management and nursing school management should assess managerial outcomes of the personnel development programme, and learners and educators should assess the programme and outcomes from their own perspectives. Management can use impact evaluation such as a possible decrease in personnel turnover or an increase in the quality of student nurses' performance as a result of effective accompaniment.

- **Standards of professional development**

Professional nurses are responsible and accountable for their professional actions. This necessitates the establishment of standards of practice to make an appropriate judgment as to what constitutes professional nursing education practice. A standard is an agreed level of excellence or an established norm. To measure the attainment of standards, it is necessary to write criteria or indicators as to how, in all probability, the standards are met (Grohar-Murray & DiCroce 1997: 196). Criteria used by the Royal College of Nursing for the setting of standards were used to set the standards for the planned personnel development programme, and the ANA's standards for staff

development were adapted to suit the purposes of this research (Parsley & Corrigan 1994: 3). Criteria used for the setting of standards for the personnel development programme are illustrated in Table 3.2.

Table 3.2: Criteria used in the compilation of standards for the personnel development programme

Criteria	Application
1. The standard should have a clearly defined target group at which the standard is aimed.	The target group for this research is nurse educators and clinical preceptors involved in the education and training of student nurses.
2. The standard statement should state which individual/ group is responsible for maintaining the standard.	Management of the nursing school should initiate and maintain standards in co-operation with health services' management.
3. The standard statement should be within the sphere of influence of those who are setting the standard.	The standard statement should be within the demarcated territory of nursing education and professional clinical practice, therefore within the field of functioning and expertise of the personnel development department of the nursing school.
4. The standard should be a clear statement of intent.	The set standards should be a clear statement of intent, indicating what should be achieved in the comprehensive organisation and management of the personnel development programme.

Standards set by the ANA for nursing personnel development were used to plan the standards for the personnel development programme of a nursing college (Alspach 1995: 279). The planned standards are illustrated in Table 3.3.

Table 3.3:   Standards for the personnel development programme of a nursing college (Parsley and Corrigan 1994:3)

Standard number	Key concept	Standard for personnel development programme
Standard 1	**Organisation and Management**	The personnel development department addresses the developmental needs of nurse educators and clinical preceptors in its mission and philosophy, and the organisational structure facilitates the provision of learning experiences.
Standard II	**Human Resources**	Nurse educators and services personnel with qualifications and experience in management should be released to facilitate the satisfaction of learning needs of nurse educators and clinical preceptors.
Standard III	**Learners**	Learners will be assisted in identifying learning needs for own personal and professional development in student education, as well as for organisational needs.
Standard IV	**Programme Planning**	The personnel development department systematically plans and assesses the personnel development programme in response to the individual learner's educational needs, as well as the nursing school's needs for effective education of student nurses.

Standard number	Key concept	Standard for personnel development programme
Standard V	**Educational Design**	The educational design will incorporate adult education principles, and facilitate the education and training of learners through the effective use of various educational strategies and technology.
Standard VI	**Material resources and facilities**	Material resources and facilities will be adequate to achieve the goals and implement the functions of effective personnel development.
Standard VII	**Recording**	An effective computerised record system will be developed. Complete evaluation reports will be submitted annually.
Standard VIII	**Evaluation**	Evaluation is an ongoing, integral and systematic process, which includes measuring the impact of the programme on the learner, the student nurse and the nursing school.
Standard IX	**Consultation**	Management staff of the personnel development department will use consultation to facilitate and enhance achievement of individual, departmental and organisational goals.

Standard number	Key concept	Standard for personnel development programme
Standard X	Climate	A climate conducive to learning, which promotes communication and active participation of learners, will be fostered.

3.4   CONCLUSION

In this chapter, the theoretical framework used in this research was discussed. The theoretical framework of Donabedian regarding structural, process and outcomes standards was discussed and will serve as a basis for the development of a personnel development programme. The standards of the Royal College of Nursing and the ANA were used to develop standards, which could be used for personnel development in a nursing college.

The theoretical foundation of Alspach regarding continuous development will be used to develop a programme for personnel development. This programme will be based on a needs assessment that will be done through the collection of data. The conceptual levels of development of Benner will be included in the questionnaire to nurse educators and clinical preceptors. This will give each the opportunity to indicate her/ his self-perceived level of competence in education and clinical skills. This data will then be interpreted for utilisation in the planning of a personnel development programme.

The concepts and constructs of Donabedian's theoretical framework will be used in the compilation of a questionnaire for the collection of data for this research, as well as in the final planning of a personnel development programme.

In the next chapter, the research methodology will be discussed.

Chapter 4

RESEARCH METHODOLOGY

4.1   INTRODUCTION

In the previous chapter, a conceptual framework for the management of personnel development in nursing schools was compiled from the literature. The framework provides a basis for the planning of a personnel development programme that will enhance the development of all personnel involved in the education and training of nursing students. Data was gathered in this research to enable the researcher to develop such a programme. Research was conducted at selected nursing colleges in South Africa. The research study consists of an in-depth literature review, relevant to the management of personnel development in the educational milieu, and a survey with regard to the development of personnel involved in the education and training of student nurses. Principals of nursing schools, nursing educators, nursing directors of health services and clinical preceptors in clinical settings were included in the study.

A triangulation of research methodology was used. According to De Vos (1998: 359), methodological triangulation is the use of two or more methods of data collection procedures within a single study. The researcher will use two quantitative instruments, namely a structured questionnaire and semi-structured telephonic interviews to gather data on the phenomena of personnel development in nursing colleges.

4.2   AIM OF THE STUDY

The aim of the research is to:

- Determine the specific developmental needs of nurse educators and clinical

preceptors with regard to their   training and accompaniment of student nurses

- Ascertain the   extent to which personnel development is provided by management of nursing colleges for their nurse educators and clinical preceptors involved in the education and training of student nurses in the clinical setting
- Establish the degree to which available resources facilitate the development of nurse educators and clinical preceptors involved in the education and training of student nurses.

The focus of the study was to use data generated through research to develop a personnel development programme for all registered nurses involved in the education and training of student nurses.

4.3   ASSUMPTIONS

Assumptions relating to this research about personnel development in a nursing college are as follows:

- Personnel development forms an integral part of nursing education management.
- The purposive development of all personnel involved in the education and training of student nurses should be part of the quality assurance programme of the nursing college.
- Educational facilities and structure should accommodate personnel development.
- A comprehensive personnel development programme for nurse educators and clinical preceptors will enhance quality assurance in nursing education.

4.4   RESEARCH DESIGN

The nature of the research and the research objectives determine the research design. In this study, a quantitative exploratory descriptive approach was used. Dimensions of the phenomena of personnel development in nursing education are explored through a descriptive design.

A cross-sectional survey was used to examine simultaneously groups of subjects in various stages of development (Burns & Grove 1993: 297). Wilson (1993:149) describes a cross-sectional survey as the involvement of subjects who are at different points of moving through an experience, surveyed at the same time and assumed to represent data collected at different times. The population included in this research consists of the principals and nurse educators of selected nursing colleges and directors of nursing services clinical preceptors who, for different lengths of time, were involved in the education and training of student nurses. Based on data generated, a personnel development programme was developed.

The survey method was used because it is probably the best method for the gathering and description of original data concerning phenomena in a population too large to be directly observed (Babbie & Mouton 2001: 232). The purpose of this survey was to generate useful and significant data to attain research aims through data-analysis regarding related phenomena of personnel development in nursing colleges (Wilson 1993: 123). This research serves the purpose of acquiring the opinions and attitudes of personnel involved in the education and training of student nurses regarding personnel development.

Data for this research were gathered by means of questionnaires and interviews.

A triangulation of the following research methods was used:
- An in-depth literature review identifying the constructs and concepts related to personnel development
- Semi-structured telephonic interviews determining relevant authorities' perspectives on the development of all personnel involved in the education of student nurses, followed by
- A cross-sectional survey, using a structured questionnaire to identify the educational needs of nursing educators and clinical preceptors.

The conceptual framework of Donabedian (1980: 81), namely that of Structure - Process - Outcomes, was used as a theoretical framework for this research and it served as a

basis for the development of a personnel development programme. The theoretical foundation of Alspach and Benner's conceptual framework for development in nursing was used to identify learning needs. The ANA's standards for personnel development was used in the development of a personnel development programme (Alspach 1995: 3, 279).

4.4.1   PURPOSE OF THE LITERATURE REVIEW

The literature review was conducted to identify and apply the constructs and concepts related to personnel development in the structuring of the questionnaires and interview guide. Selected empirical research, which reported on the practice and identified innovations relevant to the management of personnel development, was examined. *The purpose of the literature review was to:*

- Present a theoretical framework for the research
- Present an analytic and critical appraisal of recent developments with regard to the management of personnel development
- Indicate which methods, research instruments and statistics could be used
- Facilitate the interpretation of research results
- Determine the importance of this particular research for nursing education
- Apply this knowledge to the development of a personnel development programme.

The content of the semi-structured interviews and structured questionnaires was based on the literature review.

4.4.2   RESEARCH INSTRUMENTS

A structured questionnaire was used in this research because the researcher was interested in respondents' views regarding personnel development in nursing education. Questions were structured to allow the respondent to choose from a set of variables, although space was allocated if the respondent wanted to elaborate or give another possible answer.

The structure of the instrument enabled the respondent to complete the questionnaire in a minimum period of time, namely 20 minutes or less.

The telephonic interview was chosen as method to gather data from principals of nursing colleges and chief nursing managers at health facilities because these managers had a vast managerial background and could add to the identified responses of questions. It also was possible that they would discuss some of the options, which would enable the researcher to fully explore some of the phenomena of personnel development.

The research instrument consists of:
- A structured questionnaire for nursing educators at selected nursing schools in South Africa and clinical preceptors in the clinical situation where students do their clinical training. (Respondents were requested to mark the appropriate response according to their perspective. Space was allocated for additional inputs respondents wanted to make.)

- A semi-structured telephonic interview guide for directors of nursing at academic hospitals and principals of nursing colleges in the following provinces: Gauteng, Limpopo, Mpumalanga, Free State, Kwazulu-Natal, Northern Cape, Eastern Cape and the Western Cape.

4.4.3 DESIGN OF THE DATA COLLECTION INSTRUMENTS

The questionnaires were designed on completion of an in-depth literature study.

The questionnaire consists of structured close-ended questions. Respondents were requested to mark the appropriate block(s) to indicate their response. Some questions also contained an option 'Other' with the request to 'specify'. This option enabled the respondent to include possibilities not mentioned by the researcher.   Some questions have a "Yes/ No" response with the request to motivate the answer, while some have follow-up questions based on the "Yes/ No" response.

4.4.3.1 THE STRUCTURED QUESTIONNAIRE

The questionnaire consists of three parts:

- Part 1 requested demographic information about the academic qualifications of the respondent such as basic and post-basic qualifications and areas of expertise.

- Part 2 was based on the individual's views on the personnel development programme of the employer, and requires data about the content of the programme, the personal and professional development of personnel and the availability of facilities for personnel development.

- Part 3 required information on the respondent's involvement in the development of student nurses and her/his self-perceived level of development, based on Benner's concepts of development in nursing: from *novice* to *expert*.

The requested demographic data gave an indication of the respondent's level of development and how it corresponds with the indicated educational needs. The more experienced nurse educator and clinical preceptor probably would not have the same educational needs than the less experienced respondent.

According to the Skills Development Act (Act no. 97 of 1998) and related regulations (Regulation R.103 of 5 February 2000), personnel development is compulsory. The content of the personnel development programme of the different nursing colleges and health care facilities, however, will indicate if the programme provides for specific skills needed by nurse educators and clinical preceptors to enhance the quality of education and training of student nurses.

4.4.3.2 SEMI-STRUCTURED TELEPHONIC INTERVIEW GUIDE

The framework for the interview is a combination of a guided, standardised interview and an open-ended interview technique. The guided interview is used when information is required about a topic that is known by the researcher (Murphy 1995: 1016). Questions for the interview were generated from literature.

4.5   VALIDITY AND RELIABILITY

The precision with which a research instrument measures, enhances the credibility of the instrument and the usefulness of the research. Promotion of the validity and reliability of research will enhance the value of the research (Mouton 2001:100-102; Babbie & Mouton 2001:119). Using triangulation of data collecting methods enhanced the validity and reliability in this research.

4.5.1   VALIDITY

Validity refers to the extent to which the research instrument provides data that relate to commonly accepted meanings of a particular concept (Babbie & Mouton 2001: 122). Validity in this study was ensured through cross validation, namely content validity and face validity. Cross validation promotes item sensitivity and is used to enhance the validity of the instrument.

Content validity is a systematic assessment of the content of an instrument to ensure that it adequately represents or includes the entire content area or specified domain. It indicates if the variables are representative of the total phenomenon that is being discussed. When content validity is used, the opinion of experts is used to validate the instrument (De Vos 1998: 84),or it can be undertaken by the researcher alone, based on the literature review..

Face validity involves subjective judgments by experts or respondents about the degree

to which the instrument appears to measure the relevant construct. The instrument must be structured to measure accurately what it is supposed to measure and to conform to the face value of the chosen variables (Wilson 1993: 156).

The questionnaire has been presented to experts in research and educational management to confirm the content and face validity. The validity of the research is enhanced through the use of triangulation with regard to identified constructs. The evaluation of the effect of the identified constructs on each other within the framework of personnel development forms a triangulation. It is evaluated within the context of educational management. A multifaceted approach is used for the gathering and analysis of data.

4.5.2   RELIABILITY

Reliability refers to the consistency of an instrument regardless of what is being measured, and it has to do with the homogeneity of the variables (De Vos 1998: 85). The purpose of the study is to obtain the views of nurse educators and clinical preceptors on their educational needs and levels of development as well as the availability of personnel development programmes and facilities.

Research experts and educational experts assessed the instrument and the homogeneity of the variables before use. Reliability further was ensured through a pilot study.

4.5.3   PRE-TESTING OF INSTRUMENTS

Pre-testing of the instruments was done through a pilot study at:
- The South African Defence Force (SADF) Nursing College, Thaba Tswani , and
- I Military Hospital, Thaba Tswani.

The pilot study involved three nurse educators, three clinical preceptors, the principal of

the nursing college and the chief nursing manager of I Military Hospital.

The questionnaire and the purpose thereof were discussed with the nurses involved in the pilot study. The terminology used in the questionnaire was clear and the respondents experienced no problems in completing the questionnaire.

The principal of the nursing college and the chief nursing manager of the hospital were interviewed. The respondents found the content of the questionnaire acceptable. The respondents used in the pilot study were not included in the research.

4.6   POPULATION AND SAMPLE

The population for a study is the group of people about whom the researcher wants to draw conclusions (Babbie & Mouton 2001: 100). Because it is not possible to study all members of the target population, a sample is drawn.

4.6.1   POPULATION

De Vos (1998: 190) refers to Arkava and Lane in his definition of a population: "Population refers to individuals in the universe that possesses certain characteristics". Powers, Meenaghan and Toomey define a population as "…a set of entities for which all measurements of interest to the practitioner or researcher are represented. The entities may be people, or things, such as all the research books housed in a specific library." (De Vos 1998: 190.)

The population used in this research consists of:
- A population of nationally and internationally representative literature relevant to the development of personnel in nursing schools
- Category A consists of the principals of selected nursing colleges in different provinces
- Category B consists of chief nursing managers at selected hospitals where

student nurses do their clinical training

- Category C of the nursing population consists of nursing educators involved in the education and training of student nurses at selected nursing colleges

- Category D of the nursing population consists of registered nurses in health services who function as clinical preceptors in the clinical setting.

The selection criteria for the population in Category C are as follows:

- All respondents must be involved in the teaching of the four-year comprehensive programme in nursing which leads to registration as a nurse (General, Midwifery, Community and Psychiatry)

- All respondents must have a teaching position at a nursing college.

The selection criteria for the population in Category D are as follows:

- All respondents must be in charge of nursing units/ clinics

- All respondents must be involved in the accompaniment of student nurses.

4.6.2   SAMPLING DESIGN

The term 'sample' always implies the simultaneous existence of a population or universe of which the sample is a smaller section (De Vos 1998: 190). Purposive, non-probability sampling is used, based on specific criteria. The purpose is to study the perspectives of a smaller subset of the larger population of nurse educators and clinical preceptors on personnel development in nursing education. Inclusion of the whole population of this target group would be almost impossible. The purposive, non-probability sampling method is selected because of the researcher's knowledge of the population, its elements and the nature of the research.

4.6.3   SAMPLE SELECTION

The researcher selected particular groups of registered nurses according to certain criteria.

CATEGORIES A AND B: PRINCIPALS OF NURSING COLLEGES AND CHIEF NURSING MANAGERS

All principals/ deans of nursing colleges included in this survey were selected from the following provinces:

- Gauteng
- Mpumalanga
- Limpopo
- Free State
- Kwazulu-Natal
- Western Cape
- Eastern Cape
- Northern Cape.

This group represents the respondents of the telephonic interviews and is representative of nursing education managers involved in the management of nursing colleges in South Africa.

All directors/deputy directors of nursing at academic hospitals associated with the selected nursing colleges in Gauteng, Mpumalanga, Limpopo, Free State, Kwazulu-Natal and the Cape Provinces were included in the telephonic interviews as representatives of nursing managers of academic hospitals where student nurses do their clinical practice training.

CATEGORIES C AND D: NURSE EDUCATORS AND CLINICAL PRECEPTORS

Purposive, non-probability sampling of the nurse educator and clinical preceptor populations is done. *These groups are selected according to the following criteria:*

- All respondents must be involved in   the   education   and   training   of   student nurses
- Nurse educators must have a teaching position at a nursing college
- Clinical preceptors must function in a nursing unit at the clinical facility as a professional nurse.

Half of the total number of nurse educators at selected nursing colleges in the above provinces and half of all registered nurses at associated health facilities were included in the survey as representative samples of nurse educators and clinical preceptors in South Africa respectively. These two groups are representative of the total population of nurse educators and clinical preceptors in South Africa, and the distribution is adequate to make generalisation of data possible (De Vos 1998: 193). Respondents' views on their own educational needs and personnel development will be required.

In order to involve half of the total number of nurse educators at selected nursing colleges, the nursing colleges were contacted and the number of nurse educators who fall within the selected criteria, was requested. The researcher selected half of the total population at each institution.

To involve half of the total number of clinical respondents at selected health care facilities, the different institutions were contacted and the number of registered nurses who fall within the selected criteria, was requested. The researcher used half of the total population at each institution.

Samples of 200 clinical preceptors out of a possible 400 and 230 nurse educators out of a possible 460 were selected.

4.7   PERMISSION TO CONDUCT RESEARCH

A request to conduct research at academic hospitals and nursing colleges was put to the Director General, Department of Hospital Services, of each province. Permission also was requested from the principals of nursing colleges and the chief nursing managers of

the various academic hospitals. (See Annexure B.)

The request addressed to the various Departments of Hospital Services included a request for permission to conduct research at academic hospitals and nursing colleges. The names of the institutions included in this research, are set out in Table 4.1.

Table 4.1: Nursing colleges and academic hospitals included in this research

NURSING COLLEGES	ACADEMIC HOSPITALS
Gauteng:	**Gauteng:**
Ann Latsky College of Nursing, Johannesburg	Johannesburg Hospital
Chris Hani College of Nursing, Soweto	Baragwanath Hospital
S G Lourens College of Nursing, Pretoria	Pretoria Academic Hospital
Mpumalanga:	**Mpumalanga:**
Kangwani College of Nursing	Kabokweni Hospital
Limpopo:	**Limpopo:**
Northern Province College of Nursing, Giani	Tsilidini Hospital
Free State:	**Free State:**
Nursing College of the Free State, Bloemfontein	National Hospital
	Universitas Hospital
Kwazulu-Natal:	**Kwazulu-Natal:**
Natal College of Nursing, Pietermaritzburg	Pietermaritzburg Hospital
Western Cape:	**Western Cape:**
Nursing College of the Western Cape	Tygerberg Hospital
	Grootte Schuur Hospital
Eastern Cape:	**Eastern Cape:**
Charlotte Searle College of Nursing	Port Elizabeth Hospital
Frere College of Nursing, East London	East London Hospital
Northern Cape:	**Northern Cape:**
Henriëtta Stockdale College of Nursing, Kimberley	Kimberley Hospital

The consent of participatory nurse educators and clinical preceptors is requested in an explanatory letter that accompanies the questionnaire. (See Annexure D.)

4.8   ETHICAL CONSIDERATIONS

- The researcher adhered to ethical considerations regarding the collection of data and publication of findings.
- The target group was informed with regard to the purpose of the research.
- The research instrument was explained in a covering letter attached to the questionnaire, and the clarity of the content was assessed during a pilot study.
- In the application for permission to do the research, the researcher indicated that research results would be made available to all respondents involved.

4.9   DATA COLLECTION

Structured questionnaires and telephonic interviews were used for data collection.

4.9.1 QUESTIONNAIRES

Data collection was conducted, using a structured questionnaire for nurse educators and clinical preceptors. The questionnaire contained open-ended questions which gave respondents the opportunity to discuss aspects not included in the stated options. The questionnaire was mailed to respondents with a covering letter and a date for return. A stamped envelope was included to enhance the forwarding of completed questionnaires. The researcher on different occasions contacted principals and chief nursing managers to ensure co-operation regarding the return of questionnaires.

4.9.2   TELEPHONIC INTERVIEWS

The interview schedule with a covering letter explaining the purpose of the interview was

posted to respondents. The letter indicated that an appointment would be made for the

interview. Once the appointment was established and underway, the data collection was completed in 15 to 20 minutes (per interview).

Respondents included in the interviews were the principals of nursing colleges and the chief nursing service managers of health facilities. The use of a logical arrangement of pre-set, successive questions in an interview was used to collect the data.

4.10 DATA ANALYSIS

Descriptive and inferential statistic analysis was used to indicate proportions and relations between variables identified from the questionnaire. Interactions or connections between the opinions of the four groups of respondents with regard to the identified constructs of personnel development and some demographic variables such as experience, position in the hierarchy and the management of education were analysed.

Data generated, were analysed as follows:

- Some demographic variables such as qualifications, position in the hierarchy and the management of education were analysed in relation to responses.
- Proportions and relations between variables identified from the questionnaire, were analysed.
- Interactions or connections between the viewpoints of the two groups of respondents (educators and clinical personnel) regarding identified educational needs and constructs of personnel development were explored.

4.11 ATTITUDE OF RESPONDENTS

Nurse educators and clinical preceptors who responded, were very supportive. However, there was a problem regarding the Mpumalanga area in the sense that it took

a very long time before provincial authorities responded, and when permission was granted, hospital and college authorities had to be re-orientated regarding the research

and the importance of their co-operation. There also was very little feedback from that group. The provincial authorities in Limpopo did not grant permission for the research.

Most nursing school principals and nursing managers of associated hospitals were very co-operative regarding the telephonic interviews. A few respondents in this group, however, were either too busy, or did not want to participate in this research. The researcher made numerous phone calls trying to establish a time for the interview that would suit them best. It was possible to obtain a 70 % response rate from the directors of nursing services and a 88 % response rate from principals of nursing colleges.

4.12 RESPONSE RATE

The response rate, however, is not very satisfactory. Possible reasons are that nurses and nurse educators work hard and that they do not have time to spend on completion of questionnaires. Management of nursing colleges and health facilities also are very busy and find it difficult to accommodate a researcher. To preserve anonymity, the researcher did not mark questionnaires and the only way of monitoring the response, was comparing postage stamps on return envelopes.

4.12.1 THE RESPONSE GROUP: NURSING EDUCATORS

There was a response of 56% (n=130) from nurse educators. Limpopo province did not grant permission for this research and the response from the Mpumalanga province was only 2%. The response from the Western Cape, Eastern Cape, Northern Cape, Free State and Kwazulu-Natal was reasonably good.

4.12.2 THE RESPONSE GROUP: CLINICAL PRECEPTORS

This group did not respond very well. Only 45% (n=91) of questionnaires were returned. Although unit managers still have to supervise students allocated to the clinical setting,

they are not formally recognised as clinical preceptors, and this may have contributed to the weak response.

4.12.3   THE RESPONSE GROUP: PRINCIPALS OF NURSING COLLEGES

The telephonic interviews with this group went reasonably well. Out of a total of 11 colleges included in this research, it was possible to interview 8 principals - a response rate of 72.7% was thus achieved. Some provincial authorities (n=1, 9%) did not respond to the request to include the college in the research and some (n=1, 9%) only responded after the data already had been processed.

4.12.4   THE RESPONSE GROUP: NURSING DIRECTORS/DEPUTY DIRECTORS
OF HEALTH CARE FACILITIES

It was not possible to have interviews with all respondents in this group. A high workload and unexpected other priorities made it very difficult. Of the 12 hospitals included in the research, it was possible to have interviews with 9 directors of nursing services. A response rate of 75% was thus achieved. In one instance, (n=1, 8%) permission could not be obtained from the provincial authorities.

4.13   CONCLUSION

In this chapter, the research methodology was explained. An in-depth literature review, telephonic interviews and structural questionnaires were used as research instruments to obtain data. Data obtained from interviews and questionnaires were analysed, using the SAS statistical package to enhance objectivity and accuracy of findings. Quality assurance was ensured by close co-operation with statisticians and computer programmers.

In the next chapter, the data will be interpreted which will enable the researcher to draw conclusions and make recommendations regarding personnel development.